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ABSTRACT

The paper looks at traditional curriculum implementation strategies, claiming that they have been divided into two polarized perspectives: fidelity implementation and adaptive implementation. These two implementation perspectives have dominated contemporary curriculum textbooks. The paper suggests that curriculum implementation as a field of study should relinquish the notion of the fidelity perspective and should create a new constellation where the role of the teacher can be realistically constructed in light of whose authority is of most importance within the classroom. It proposes another perspective, the enactment perspective, where teachers and students create meaning in the classroom. The text describes three paradigms--positivism, postpositivism, and constructivism--in order to compare and contrast the basic assumptions of each perspective. The paper examines in detail the enactment perspective in order to discover an alternative method of professional development, claiming that the teacher-as-member-of-classroom-community is likely to provide both the teacher and the students with enhanced educational growth. (Contains 80 references.) (RJM)

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# Rethinking Curriculum Implementation: Paradigms, Models, and Teachers' Work

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**Rethinking Curriculum Implementation: Paradigms, Models, and Teachers' Work**

## I. Introduction and overview

After reviewing major texts about curriculum change, I found it necessary to reconstruct the current conceptual map regarding the curriculum implementation perspective. Since the mid-1970s, the design of traditional implementation strategies has been divided into two polarized perspectives: *fidelity* versus *adaptive* implementation, and each of these has its followers. Those who believe in fidelity believe that good education occurs through homogenized and standardized implementation of the curriculum while disciples of adaptive implementation emphasizes a local-oriented change process (Fullan & Pomfret, 1977; Berman & McLaughlin, 1976). Recently, however, Snyder et al. (1992) offered a third alternative, called *enactment*, to help teachers and students make meaning in the classroom. Nonetheless, it is found that two traditional implementation perspectives have dominated in contemporary curriculum textbooks (Posner, 1994; Marsh & Willis, 1995), and the new evolving perspective such as Snyder et al.'s (1992) has merely been used in opposition to the term "implementation" which connotes a technically oriented process of change (Sowell, 1996).

After exploring the traditional frame of reference in terms of implementation paradigms as basic beliefs and implementation models as specific indicators, I would argue that curriculum implementation as a field of study should relinquish the notion of the fidelity perspective in the first place. Instead, it should create a new constellation, where the role of the teacher can be realistically constructed in light of whose authority is of most importance within the classroom. In

order to accomplish this new conceptual framework for the implementation perspective, I will define these three perspectives, then compare and contrast them along three themes.

First, I will describe the basic assumptions of those perspectives in reference to the paradigmatic framework of Guba and Lincoln (1994), which helps us distinguish curricula in use from one another, depending on ontological, epistemological, and methodological differences. Second, I will ponder the possibility of a dual interpretation of the mutual adaptation perspective by relating its external imposition to the features of fidelity or programmed implementation models. Finally, I will discuss the limitations of the traditional implementation discourse in the role of a teacher and will consider new aspects of the work of teachers.

## Definitions

### The fidelity perspective

Based upon its roots in behaviorism and positivism, the fidelity perspective views the change process in a technological and linear manner. The idea of this perspective is to use the curriculum as its developers originally intended. Hence, it is firmly expected that a highly specified program developed by experts will be actualized in practice as exactly as possible, without any modifications. For instance, where implementing a curriculum, once a final decision is made, "programmed implementation procedures [fidelity] are supposed to be followed by all levels of the organization involved" (Berman 1980, p. 208). Likewise, those concerned with curriculum change or improvement in this line of thought tend to believe that there is a significant relationship between the fidelity of use and the amount of planned change. The degree of implementation of an

innovation is mainly determined by the extent to which actual use of an innovation corresponds to planned use (Fullan & Pomfret 1977, p. 3; Loucks, 1983; Loucks & Pratt, 1979).

**The adaptive perspective**

Consistent with the notion of the adaptive perspective is the sensitivity of postpositivism that emphasizes the complexity of the context in which a change takes place. Opposed to the overspecification and rigidity of implementation goals and objectives, this perspective stresses a process that permits implementation "policy to be modified and revised according to the unfolding interaction of the policy with its institutional setting" (Berman 1980, pp. 210-211). In curriculum implementation, this is widely referred to as "mutual adaptation," a term coined by McLaughlin (1976). Accordingly, most educational concerns are to fit a proposed innovation to the institutional setting that encourages reducing the gap between an ideal implementation goal and given local contexts. In short, the success of a new curriculum results from the consequence of trade-offs within a local context in which multiple values are embedded. Yet, the authority of written programs selected is still, to a large extent, respected by change facilitators and implementers (Hall & Hord, 1987; Leithwood & Montgomery, 1982; Lewis, 1988).

**The enactment perspective**

Argued by Snyder et al. (1992), the enactment perspective refers to intracontextuality in creating meaningful educational experiences "shaped by the evolving constructs of teachers and students" (p. 404). What makes this an alternative perspective, compared to the previous two perspectives, is the way it defines the concept of "curriculum." In this perspective, different priorities for

"successful" implementation can be made WHILE the teacher and students enact the curriculum. In this respect, "curriculum" is not necessarily the taken for granted notion of "a document." Nor is it captured by the *a priori* instrument by which researchers are able to measure the enactment of the curriculum in light of predetermined goals and objectives. The enactment perspective points out the misnomer of the term *implementation* due to an unnecessary application of top-down bureaucracy.

## II. Understanding implementation paradigms

There has been little research on implementation paradigms. Investigating kinds of paradigms is important not only because a major difference is identified between the fidelity and adaptive perspectives, but also because the possibility of a newly emerged perspective argued by Snyder et al. (1992) may be more or less firmly justified. Additionally, the issue of authority in interpreting written texts or curriculum guidelines may be also conceptually investigated. In what follows, I describe a brief review of two traditional implementation paradigms since the mid-1970s, followed by a creation of paradigmatic understanding where the different thoughts are compared and contrasted.

### A brief review of two traditional implementation paradigms

As early as the 1970s, research on curriculum implementation measured the degree of implementation by means of a prescribed instrument. With a direct correspondence to practice in mind, educational researchers paid attention to snapshots of the behavior of the teacher, moment by moment, in the classroom (see examples in Fullan & Pomfret, 1977; Kimpston, 1985). As an

early historical fad in research on teaching, such a rigid implementation paradigm was based upon behaviorism, which is easily connected to positivism, firmly distinguishing facts from values, and researcher from the researched. In principle, the term *fidelity* was used to indicate the direct relationship between an innovation and its user in terms that greatly prioritized the developer's original intention. That is, *fidelity* meant following the program as the developers intended.

In fact, the field of implementation has its disciplinary base in research on knowledge utilization and educational change from the 1950s to the early 1970s. In order to formulate a newly emerging paradigm in the late 1970s, for instance, in the discourse of meta propositions, Berman (1981) initially described a long-standing paradigm as follows:

> Using experimental or quasi-experimental methods, researchers and evaluators could test to determine which technologies-innovations, projects, models, educational methods, and so on-were most effective at the local level. There was a belief ... that schooling could be improved if tested and replicable products (technologies) were disseminated widely to schools. Practitioners would adopt these technologies if they had information about them ... I shall call the research paradigm ... the *technological-experimental paradigm*. (p. 257, emphasis added)

Looking at the characteristics of an innovation along these lines is consistent with House's thesis (1979) dealing with *a technological perspective*, which employs a 'doctrine of transferability' in terms of a linear Clark-Guba model applied to the research, development, and diffusion (RD & D) (pp. 2-4). That is, it is assumed that any research finding can surely be generalized in any context without serious modifications. As a consequence, given the notion that the field of implementation should focus on an actualized process in practice, Fullan and Pomfret's (1977) criterion, *fidelity* or fittingness to original intents of the developer, was widely known. In other words, the fidelity

of use informs practitioners of a maintenance of the intentions of curriculum developers.

A case study that Fullan and Pomfret (1977) analyzed is representative of this view. In this study, Hess and Buckholdt (1974) divided research subjects into three groups with different treatments. Then, they randomly chose a class schedule followed by a classroom observation, by means of an instrument consisting of six components that were supposed to be measured by a three-point scale. Hess and Buckholdt (1974) concluded that "students in classes of high implementation teachers show greater acquisition of objectivity" (Fullan & Pomfret, 1977, pp. 349-350). In other words, since the Group 1 teachers who received the complete set of a Language and Thinking (LAT) package materials produced a better achievement than the Group 2 teachers who received no LAT materials, the Group 1 teachers, divided into high, moderate, and low implementers, depending on the ratings for those six components, were compared in conjunction with the main percentage of students' scores on mastery tests. Accordingly, the key aspect of the fidelity of use was the degree of strictness to the specified guideline as a standard used for labeling *high implementers*. Key components for determining *fidelity* for high implementers were as follows:

1. Teacher preparedness for LAT lesson(s) observed.
2. Correct following of procedures as specified in the teacher's guide.
3. Proper use of LAT materials as suggested in the guide.

Regarding the possible issues underlying the context in which an innovation becomes actualized, Hess and Buckholdt (1974) maintained that implementers' accountability is mainly considered an independent variable. Briefly, knowledge utilization and educational change are expected to occur only when faithful implementers follow the guidelines and control a diversity of needs and

interests from their students in a skillful manner.[1] In the long run, teaching is conceived of as a considerably limited process for the purpose of achieving a product (a curriculum), since implementation is predicted as an extremely well prescribed phenomenon.

However, an alternative perspective has emerged. In the mid-1970s, the Rand Change Agent conducted some unprecedented large-scale research on the implementation of federally supported programs. By closely looking at almost 300 projects used for survey research, plus about 30 settings used for field research, Rand researchers pointed out that "the very nature of these projects requires that implementation be a *mutually adaptive process* between the user and the institutional setting" (McLaughlin, 1976, p. 340, emphasis in original). In effect, Rand's finding that modification of implementation is an intrinsic part of education has been generally accepted.

With an implementation paradigm shift in mind, Berman (1981) continued to assert that "research has changed ... from a quest for superior technologies to an exploration of organizational and contextual explanations of change" (p. 260). He maintained that the challenge against the taken for granted technological-experimental perspective gave rise to a new consideration of three meta-propositions referring to ways of thinking about educational change:

1. Educational change typically involves an implementation-dominant process.
2. The educational change process consists of three complex organizational subprocesses- mobilization, implementation and institutionalization - that are loosely, not linearly, coupled.
3. Outcomes of educational change efforts tend to be context-dependent and time-dependent (pp. 261-278).

Given many observations regarding what is going on behind the classroom doors, with new innovations doing nothing more than gathering dust on shelves during the 1960s (Sarason, 1971; Goodlad & Klein, 1970), Berman's propositions were informative in understanding adaptive implementation in relation to McLaughlin's empirical findings noted above. Presumably, change efforts that involve many unpredictable factors can be best undertaken by negotiating the intention of the developers and thus by adapting it to each institutional setting in which an innovation takes place. That is why this adaptive paradigm is concerned with the notion that adopting an innovation is just the first step in a complex change process. Unlike the fidelity perspective that views reality as *static* and *transmissional*, the adaptive perspective brings *a constant flow of mutual modification* to the heart of an organizational change process. In the long run, a change process resembles a time-consuming and context-dependent process (Frey, 1979; Lane, 1980; Hall & Loucks, 1981).

Specifically speaking, reality in this perspective is based upon "modified dualism" (Guba & Lincoln, 1994, p. 109) that partially requires the maintenance of objectivity. In modified dualism, the user is responsible for effectively transforming the project selected into the context, in which his or her role change should also be concretely demonstrated. For example, Berman and McLaughlin (1976) conceptualized *mutual adaptation* as occurring "only if the project was preceded by attitudes and commitments associated with problem-solving" (p. 353). Hence, staff and administrators should get involved in *a collective learning process* where relatively unspecified classroom innovations (i.e., classroom organizational projects) are expected to fit into their own context and, at the same time, where their role behaviors are required to support "a full

achievement of the project' goals" (p. 353). Meaning comes about through a constant, transactional process between an ideal goal and the existing reality.

## Creating a framework for implementation paradigms

Snyder et al. (1992) viewed the fidelity perspective and the adaptive one as "the dominant approaches" (p. 402) in educational policy and research tradition. To formulate the enactment perspective against the two traditional approaches, they traced back to historical events such as the Denver Project and the Eight Year Study in the 1920s and 1930s, when particular experimental projects were conducted under the progressive movement. In order to make Snyder et al.'s (1992) argument more clear and convincing, I would like to create a new paradigmatic framework for grounding a further curriculum implementation discourse, which goes beyond the existing pattern of implementation discourse in curriculum textbooks (Miller & Seller, 1985; Glatthorn, 1987; Ornestein & Hunkins, 1988; Posner, 1994; Marsh & Willis, 1995; Sowell, 1996) as well as the literature on change (Berman & McLaughlin, 1976; Fullan & Pomfret, 1977; Fullan, 1991).

To what extent can the three perspectives be distinguished from each other? I found it useful to understand them in connection to paradigms such as positivism, postpositivism, and constructivism (Guba & Lincoln, 1994).[2] Indeed, it is believed that this threefold paradigmatic framework, inwardly subsuming the fidelity, mutual adaptation, and curriculum enactment perspectives, is useful in understanding a qualitative pattern of how an innovation is transformed into each context. As Guba and Lincoln demonstrated (1994), those indicators such as ontology,

epistemology, and methodology seem to become the basis for singling out essential assumptions of different implementation perspectives (p. 109).

| Paradigms | Positivism | Postpositivism | Constructivism | [Critical theory] |
|---|---|---|---|---|
| Perspectives | Fidelity | Mutual Adaptation | Enactment | |
| Ontology | Pure reflection | Negotiation/Grounded | Local realities | |
| Epistemology | Objectivist | Modified dualism | Subjective/Created | |
| Methodology | Evaluation-based | Variation-based | Meaning making | [Emancipatory Participation] |
| Kinds of Approaches[3] | **Technological learning** (Berman et al., 1976)<br>**Programmed** (Berman, 1981)<br>**RD & D** (Posner, 1994)<br>**Implementation** (Sowell, 1996) | **Process** (Fullan et al., 1977)<br>**Transactional** (Miller et al., 1985)<br>**Collaborative** (Posner, 1994) | **Curri. Enactment** (Snyder et al., 1992)<br>**Transformational** (Miller et al., 1985) | **[Freirian discourse]** (Freire, 1970) |

<Table 1: Curriculum implementation paradigms>

In particular, the characteristics of postpositivism refer to those of *mutuality* and *adaptation* in a modest manner: those concerned with policy-making, research, and practice focus on the complexity conducive to implementation and, at the same time, to a socially and politically negotiated outcome after the undertaking of implementation (Snyder et al., 1992; House, 1979). This means that the authority of the developer must continue to be respected by the user, and at the same time, the setting should be modified by the project. Because reality is preoccupied with

problems and conflicts that need to be overcome, rigorous planning and local flexibility are necessary. For example, Dow et al. (1981) noted this process of negotiation:

> In such a dynamic process [mutual adaptation], problems arise and conflicts occur which inhibit actual implementation. A number of authors suggest that such conflicts and problems arise in reaction to obstacles or barriers, some of which may be identified prior to the onset of the implementation. If this is the case, ... the likelihood of success should increase. (p. 2)

Slogans such as 'school effectiveness' or 'school restructuring' are ultimately aimed at increasing the likelihood of success in schooling (Levine & Leibert, 1987). All users are expected to bring themselves to this dynamic implementation process for the purpose of making a significant difference. Collective, ongoing, and collaborative decision making are here required in consulting a curriculum guideline. This is different from the fidelity or programmed perspective recommending the fidelity of use directly reflected through the fixed text with little tolerance in adaptation (i.e., teacher-proof curricula). Nonetheless, because this breakthrough approach to implementation internally hopes that "there will be as little contamination of the program goals and design as possible" (Snyder et al. 1992, p. 412), mutual adaptation as a postpositivist paradigm tends to waffle the fidelity perspective, forcing the user to maintain the intended use of the curriculum.

Snyder et al. (1992) traced the origins of the enactment perspective (e.g., the Denver curriculum project) and relevant experimental writings (e.g., The Eight Year Study; Bussis et al., 1976; Paris, 1989) and concluded that the "outside influences designed to control the classroom experiences of teachers and students tend to result in a negative effect on students and teachers" (p. 427). When

one views "knowledge as temporary, developmental, socially and culturally mediated, and thus, non-objective" (Fosnot, 1993, p. vii), one comes to emphasize 'currently evolving meaning construction' within the classroom, no matter what the guideline imposed outside the classroom. This perspective is, however, clearly distinguished from the postpositivists' thinking of curriculum implementation, which is based upon external interaction among the elements such as the user, curriculum (novelty), and the organization (Hall & Hord, 1977; Dow et al., 1981; Leithwood & Montgomary, 1982). That is, curriculum as novelty may be something imposed by the developer outside the classroom, rather than 'an event' reinterpreted and reconstructed by the teacher and students in the banner of "the experienced curriculum" (see Doyle, 1992, pp. 492-493; Skilbeck, 1992; Ben-Peretz, 1990). It is less important to focus on whoever develops a curriculum, however. Instead, it is more important to consider how to help the teacher and the students together construct their own knowledge.

The use of the term *curriculum enactment* invites an active involvement of students and teachers who bring their own background knowledge to the classroom. It also strongly encourages teachers to be 'aggressive interpreters' who are supposed to create educative room for their professional development (Ben-Peretz, 1990; Aoki, 1983; Flanders, 1983). Analytically, the priority in implementing something is located in the very context where evolving meanings are shaped. Metaphorically, curriculum implementation is not the same as placing the conduits to individual contexts (McCutcheon, 1988, p. 202; Clandinin & Connelly, 1992, pp. 369-370). With Dewey (1938) in mind, those curriculum theorists emphasized the fact that curriculum knowledge is required more from the context (Cornbleth, 1990) and/or "personal constructs which must be

answered to both personal and external standards" (Snyder et al., 1992, p. 418), than from the written curriculum materials themselves imposed by external curriculum experts (Skilbeck, 1992; McCutcheon, 1992; Ben-Peretz & Schonman, 1992). Ultimately, the social construction of reality involves both teacher and students in their search for personal meaning (Berger & Luckmann, 1966), regardless of the curriculum guideline.

## III. Conventional implementation models revisited

One might be familiar with a variety of models or rationale for developing a curriculum (Tyler, 1949; Taba, 1962; Zais, 1977) and, at the same time, with some points of view against those simplistic and scientific modes of thought (Schwab, 1970; Walker, 1971; Pinar, 1975; Eisner, 1979). What about the field of curriculum implementation? The 1980s observed that the very field of curriculum implementation needs to be more broadly understood than has been normally thought (Fullan, 1982). In this section, I pay particular attention to conceptual problems of implementation models and strategies for the purpose of pinpointing some strategic similarities in the traditional perspectives, fidelity and adaptive. In doing so, I argue that the field of implementation should not only scrutinize models and strategies associated with factors influencing implementation, but also become an educational vehicle by which practitioners can increase and understand ways of professional development. In short, policy makers need to provide practitioners with "more autonomy" in interpreting and using the curriculum guideline, rather than dictating a "teacher-proof curriculum."

**The traditional models: Functional and co-creative strategies**

Fidelity or programmed implementation models are designed (1) to increase the effectiveness of the delivery system of an innovation and (2) to explain and predict the progress of concerns and use by the users along the expected steps, as shown in Table 2.

| Fidelity perspective | Adaptation perspective | Enactment perspective |
|---|---|---|
| CBAM (Concerns-Based Adoption Model) | Rand Change Agent Model | The Denver Project |
| SoC (Stages of Concerns) | IP (Innovation Profiles) | The Eight Year Study |
| LoU (Levels of Use) | OD (Organizational Development Model) | |
| IC (Innovation Configuration) | | |
| Linkage Model | | |
| RDD (Research, Development, and Diffusion) | | |
| Top-Down Strategies | Multiple Element Strategies | |
| | Middle-Up Strategies | |

<Table 2: Implementation Models/Strategies[4]>

Specifically, the field of implementation has its roots in a change process such as "adoption, dissemination, and diffusion" (Rogers, 1962; Schon, 1971; MacDonald & Walker, 1976). In this respect, for example, fidelity or programmed implementation models are conceived of as functional. On the other hand, early implementation theorists at the University of Texas at Austin in the 1970s created a series of instruments by which they measured the extent of implementation (Hall & Loucks, 1977). These are viewed as instrumental and prescriptive. Accordingly, I argue that these fidelity-centered models as both an effective delivery system and an effective

measurement instrument can be used interchangeably along with the same underlying strategy for improving practice according to pre-determined goals and purposes intended by curriculum developers (Marsh, 1987).

With adaptation in mind, on the other hand, few models exist in the literature on change. As in the case of the programmed implementation models, two connotations emerge in these mutual adaptation models. One is that the teacher cannot help but fit an innovation to his or her context. Adaptation implementation thinkers tend to accept the assumption that the curriculum guideline as a predetermined text should be appropriately interpreted by the users within their context. This places all responsibilities for the best implementation on the shoulders of the user facing contextual predicaments as a whole. The Rand Change Agent model (Berman & McLaughlin, 1976) is representative of a process of naturalistic negotiation.

The second type of adaptive models requires those in charge of implementation tasks, the so-called *change facilitators* (i.e., principals or outsiders) to actively get the user involved in the process of developing the implementation plan. Ultimately, these facilitators consider the process of implementation to be that of an active educational effort to reduce an inevitable gap between social goals and their image of an educated person.

Of course, teachers are considered to be working at different levels, because of their differing levels of skills and knowledge. This is the case of Innovation Profile model (IP) by Leithwood and Montgomery (1982). Changing individual teachers' teaching practice by acquiring new skills and

knowledge through the collective implementation planning process results in an "individual teacher's growth" (p. 160). I call this a process of active negotiation, while McLaughlin and Marsh (1978) interpreted it as 'a new staff development strategy.'

The establishment of such *a learning system* refers to the development of implementation strategies (see McNeil 1990; Jang, 1994), such as the Multiple Element Strategy (Loucks & Lieberman, 1983) or the Middle Up Strategy (Louis & Dentle, 1988). For the former, given the three interconnected key concepts, "developmentalism, participation, and support" (pp. 129-133), Loucks and Lieberman (1983) have argued that since teachers' concerns are in order, their participation increases the probability of success, so that they need different kinds of support at various times. Indeed, knowledge utilization would be more effective if school staff were directly asked to be aware of new knowledge coming from the outside, and if they were asked to introduce the new knowledge to their colleagues so that they could find a better way in the process of implementation over time (Louis & Dentle, 1988).

**Discussion**

The discussion of implementation models leads to a sense of direction that promotes some specific action plan essential to the acquisition of desired implementation goals. In the 1980s, there was much debate between the pro-fidelity and pro-adaptation perspectives (Marsh & Willis, 1995, pp 216-220). As Table 2 shows, these conflicts result from inherent differences in implementation paradigms determining their own model or strategy. Nonetheless, many have argued that a mix of both would be more effective in formulating a policy implementation. While such a pragmatic

view was likely applauded by policy makers and implementers (Berman 1980, p. 206), some were skeptical of it in favor of the fidelity-oriented model. Roitman and Mayer's (1982) "reinvention" is an example of this. Bearing on an assumption that "programs operationalized in concrete terms can actually be implemented with acceptable fidelity at adopting sites" (p. 3), they defined "reinvention" as having nothing to do with lack-of-fidelity, arguing that "creative adaptation" (p. 5) is a necessary condition to the search for more appropriate interpretation, rather than a mere measure of transforming ambiguous components or terms into acceptable ones. In short, Roitman and Mayer (1982) pinpointed the fact that the more concrete the program is, the higher the level of reinvention that is achieved.

In contrast, some were critical of the Rand Change Model itself, which was to a large extent characteristic of "a problem-solving initiation, attempts of a variety of adjustments, and institutionalization" (Berman & McLaughlin, 1976). Such critics paid specific attention to the issue of measurement in doing research (Roitman & Mayer, 1982; Loucks, 1983) and the problem of selection - i.e., classroom organizational projects as loosely specified innovations - (Datta, 1980). In the long run, I feel most comfortable with the argument of Snyder et al. (1992), who pointed out that the Rand Model was in most ways a variation or a by-product of fidelity-oriented models:

> Mutual adaptation studies are not so easily classified ... and did not begin as an effort to study the adaptation phenomenon. It was the result of attempting to understand the practical realities of the change process and practice that did not lend themselves to strict models which could be replicated. (p. 410)

With this critical notion in mind, let us go back to the Innovation Profile (IP) mentioned in Table 2. In reality, this attempt results from many kinds of activities, support, resources, leadership, collegiality, and the like. However, it should be noted that constructing an IP is referred to as 'implementation planning,' with which the process of implementation might be enhanced, rather than an 'implementation phenomenon,' characterized by the actual use or curriculum in use itself. That is, IP becomes another type of the innovation guideline with collectively negotiated authority among users within a local context. The gap between "ought" and "is" is assumed to be reduced by focusing on the sequential relation between diagnosis and application of IP, which mostly occurs outside the classroom.

To summarize, considering implementation models and strategies becomes relatively specific, since the term *implementation* connotes in many ways a vehicle, by which policy makers and implementers alike intend to achieve an intended outcome as exactly as possible. That is why they are primarily concerned with factors influencing implementation (Fullan & Pomfret, 1977). I have articulated some arguments ranging from advocates of pro-fidelity to critics of pro-mutual adaptation on the continuum of implementation models and strategies, yet I did not mention the viability of enactment models suggested by Snyder et al.'s case examples such as the Denver Project (1922) and the Eight Year Study (1932-1940). The specific description of each is beyond the scope of this paper. The key point that makes these cases look different from the fidelity and adaptive models noted before is threefold: *(1) personal growth and morale of teachers are as important as any specific outcomes of their curriculum efforts; (2) development and enactment of the curriculum are simultaneous and ongoing; and (3) active participation of students is in*

*most ways fully guaranteed*. In other words, **these kinds of models are based upon a strong belief that trusts the capacities of the teachers and the students who can construct products that are both personally and socially agreeable.** Although simplified steps are not prescribed, a common belief among practitioners experiencing a new birth of freedom is transformed into the creation of the togetherness in terms of students' immediate, onging needs and interests. Most of all, teachers' personal and practical knowledge, intuition, and image are expected to be used for the connection between development and implementation (Elbaz, 1981; Olson, 1980). Absolute autonomy of teachers and students lies in the heart of these Denver and the Eight Year models.

## IV. A new constellation of teachers' work

How do we define the expected role of the teacher, given the intended use of an innovation? The answer to this question seems simple but is, in fact, complex. This kind of discourse in the field of curriculum implementation is said to significantly contribute to establishing a better way of bringing the teacher and the teacher educator alike to the issue of professional development (Butt, 1984). Presumably, the three implementation perspectives require different modes of teachers' work as they approach professional development in terms of whose authority is most worthwhile in shaping curriculum in use. In this section, rather than describing specific methods of professional development argued by each perspective, I focus on a professional image of the teacher expected to play an expected role in actualizing an innovation. I first explore an existing discourse, polarizing teacher-as-faithful implementer and teacher-as-adaptor, the two dominant perspectives, the fidelity and mutual adaptation, respectively, for the purpose of conceptualizing, if not empirically, an expected image of the teacher. Next, I propose a potential new constellation

*between* teacher-as-learner in the mutual adaptation perspective *and* teacher-as-member of classroom learning community in the enactment perspective.

**Between two traditional perspectives: implementer vs adaptor**

After reviewing the historical debate on fidelity of use and mutual adaptation, Marsh and Willis (1995) concluded by positioning Noddings's ethic of caring (1986) in the middle position:

> "Fidelity", therefore, is not merely to the curriculum, it is also to the purposes-really to the people-for which the curriculum is intended. Any sense of "fidelity of use" that obliterates the possibility of adaptation in practice ... is ethically indefensible. However, teachers must also care not only about improving their students' lives, but how the curriculum can best do so. "Adaptation", therefore, cannot be merely a way of avoiding "fidelity" to a curriculum that scrupulously and rigorously reveals to students the actuality of the larger world in which they live. ... In this sense, the real debate is not about fidelity versus adaptation, but how to honor both fidelity and adaptation simultaneously. (Marsh & Willis 1995, pp. 219-220)

Marsh and Willis (1995) find the middle ground between two polarized perspectives, by relating professional and ethical caring to "curriculum in use as intended" and "the improvement of students' lives" at the same time. For some reason, this seems persuasive. However, how can one honor both fidelity and adaptation simultaneously in practice? In this case, one cannot help but rely on 'the wisdom of the practice' that is situational and implicit within the context in which a pedagogical judgement should be made by the teacher. Unfortunately, Marsh and Willis (1995) do not clearly address this issue.

One cannot easily solve such a debate between two traditional perspectives, however. This is

because the extent to which the mutual adaptation perspective is in operation is *uncertain* and *even ambiguous* in contrast to the fidelity perspective. As noted in the previous section, for example, if mutual adaptation models were implicitly aimed at enhancing fidelity of use in the long run, then the actual role of the teacher would be forced to go toward that of a faithful implementer. Hence, *Marsh and Willis' (1995) deliberative conclusion merely reflects part of a status quo in the conventional role perception of the teacher, rather than providing us with some room for teachers' autonomous curriculum decision making confronting the imposed guideline*. Their argument is in line with Berman and McLaughlin's (1976) findings associated with types of implementation that problematized the role of the user:

> Project adaptation to the indifference and resistance to change on the part of project participation but no change by participants themselves: this one-way process could be called *cooptation* of the project by its host. (p. 352)

Alongside two other types of implementation, such as 'nonimplementation' and 'an imaginary type of technological learning' (i.e., teacher proof curricula), **the teacher-as-resister is surely in opposition to an image of the faithful implementer**. If one labels this one-way process of implementation as 'cooptation or something,' one may miss the significant assumption that the teacher has authority and autonomy over making a curriculum decision within the classroom. Such an expression as "cooptation of the project by its host" noted in the quote above is professionally related to the issue of accountability. Yet, I argue that another, or even multiple, rationale should be used to consider the consequence of such accountability in practice. For instance, given the notion of educational potentials that have been at first operationalized by the developers transforming their subject matter knowledge into curriculum materials, "the teacher as

user-developer" (Connelly & Ben-Peretz, 1980, p. 106) should secondly interpret them as though adapting forms of general knowledge to more appropriate contents or topics that might be different from the original intention of the developer (Ben-Peretz, 1990; Silberstein & Ben-Peretz, 1987).

There is also evidence that understanding the idiosyncracies embedded in teachers' theory of action should become the first step in approaching a variety of courses of action in view of teachers' curriculum decision making (McCutcheon, 1992, 1995). In short, understanding the extent and quality of adaptation requires multiple criteria rather than focusing solely on the exactness of developers' intentions or degree of fidelity in implementation.

Keeping the intentions of the curriculum developer in mind may not be the best way of implementing a curriculum if the teacher's interactive planning is frequently challenged by an unexpected situation, where the teacher's pre-planning is overwhelmed by the needs and interests of the students (Clark & Peterson, 1986), or where an impracticality for setting is observed (McCutcheon, 1988). Marsh and Willis's (1995) relativistic conclusion may not, to be sure, be the best answer, mainly because the role of a teacher can be interpreted differently by different people. Accordingly, I argue that specific, context-embedded *curriculum* decision making, although overlapping an ethic of caring to *teaching* (Noddings, 1986), should be considered so that both the fidelity and adaptive perspectives are honored at the time. Unless scrutinizing such value-dependent curriculum decision making from the perspective of practitioners who face a necessity of togetherness of the means and ends in education, such a relativistic position may be biased in a

way in which the authority of curriculum guidelines becomes still dominant in some way.

**A new constellation: teacher-as-learner vs member-of-classroom community**

Honoring both the fidelity and adaptive perspectives at the same time may need another, or multiple, criteria to make sense of the complex role of the teacher (cf. Heck & Williams, 1984). However, this does not mean that it is useless to honor both perspectives. As I argued earlier, I am primarily interested in seeking more room for teachers' professional autonomy by means of an educational and professional imagination BETWEEN an image of the teacher-as-learner in the middle ground on the continuum of fidelity of use and adaptive perspectives AND that of the teacher-as-member-of-classroom community, argued in the enactment perspective.

Based upon the necessary establishment that curriculum materials ought to be well-structured and specified, Van den Akker argued (1988):

> [A]daptation to habits will occur in a more deliberative way if a teacher's initial experience with a programme accord with the intended approach and if teachers have experienced the 'spirit' of the programme in their 'role-taking' behavior. ... Certainly, if early experiences have been satisfying and yield positive results ..., there seems more chance of commitment to a programme and of stable and substantial changes in the direction of proposals for an innovation. (p. 54)

The key aspect of the above argument 'if clauses' seems to be related to the *initial* implementation phase, demanding the need for clarification and exploration of a curriculum guideline. As a result, Van den Akker (1988) maintained that, given a curriculum showing *procedural specification*, teachers situated in a process of learning 'new roles' would produce (a) a better understanding of subject matter, (b) a more enlightened inquiry approach to the lesson

planning, and (c) psychological enforcement of their lesson experience. It is technically advised, therefore, that curriculum developers are required to provide the teacher with "a more ... accurate 'internal dialogue' about the what, when, how and why of their own teaching role" (Van den Akker, 1988, p. 55). This professional position, focused on both teachers' active involvement in developing curriculum materials and developers' curriculum expertise, is reinforced by a general framework intended to enhance the classroom and school improvement reform movement since the mid-1980s (i.e., professional development schools). Fullan et al. (1990), on one hand, similarly proposed the concept of the 'teacher-as-learner' by constructing four elements, "technical repertoire, teacher as researcher, collaboration, and reflective practice," for such a general framework:

> The mastery of a *technical repertoire* increases instructional certainty; *reflective practice* enhances clarity, meaning, and coherence; *research* fosters investigation and exploration; *collaboration* enables one to receive and give ideas and assistance. (p. 16)

By mentioning that those four identical elements should be integrated by the individual teacher, Fullan et al. (1990) formulated the role of the 'teacher-as-learner' in terms of an idea of interconnectedness aimed at "meeting the challenge of our collective vision of the potential of schools" (p. 17). As noticed earlier, the mutual adaptation view demands the teacher be someone working in a back-and-forth routine during the curriculum process that is constantly negotiated inside and outside the classroom. In this respect, Snyder et al. (1992) analytically divided this aspect of the role of the teacher in the mutual adaptation perspective into two sub-images:

> From the mutual adaptation perspective, the role of the teacher becomes more active in shaping the curriculum to meet the demands of the local context. For those with an underlying fidelity orientation, this is a role that is pragmatically necessitated, but which must be contained within certain parameters if curriculum integrity is to be maintained. (p. 429)

It is reasonable to say that Van den Akker's and Fullan et al.'s image of the teacher-as-learner is roughly related to that of those with the fidelity-oriented mutual adaptation perspective, since they inherently view the teacher who needs *the specifically prescribed guideline* plus *collective norms* among the teachers not to miss the original intention of the curriculum to be implemented. Indeed, the local context in which an innovation takes place may be entirely fixed to the clearly predetermined steps (i.e., high fidelity-oriented) and productivity-based management or "teacher intensification" (Apple, 1986; Hargreaves, 1992) at the expense of the judgement from "the students' vivid quality of experience" in many ways (Henderson & Hawthorne, 1995). In a similar manner, Connelly and Ben-Peretz (1980) formulated three possible roles of teachers in implementation, one of which involves "full partners in development as user-developers" (p. 106). That is, teachers transform curriculum materials into learning experiences available to the students by means of teachers' personal knowledge, shaped by previous experiences and their belief systems.

> This transformation is based on teachers' interpretation of materials, their ability to discern their potential, and their perception of reality. ... Her decision not to pay attention to the assignment of roles in the materials and to let the students make modifications in their role cards. (Ben-Peretz 1990, p. 61)

*Specifically, the above image of the teacher refers to the notion that teachers should be free from*

*the tyranny of texts and, at the same time, they should conceptually work together with curriculum developers*. Hence, both the teacher and the developer share the same authority in solving the problem of curriculum use (Silberstein & Ben-Peretz, 1987). In effect, however, Connelly and Ben-Peretz (1980) argued that teachers can interpret different topics in ways which have nothing to do with the original intention of program developers. Although Connelly and Ben-Peretz (1982) considered their logic of possible roles of the teacher in curriculum implementation to be the same as that of the mutual adaptation perspective originated by McLaughlin (1976) at that time, I believe that they are closer to the position of the **purer mutual adaptation** as compared to that of **fidelity-oriented mutual adaptation**. According to Snyder et al. (1992), "for those with a purer mutual adaptation approach, the role of teachers becomes more central because their input in shaping the curriculum is required if the curriculum is to be successfully implemented in the particular setting" (p. 429).

Therefore, this kind of expected role of the teacher is different from that of the teacher-as-learner mentioned above, which I believe is in line with the fidelity-oriented mutual adaptation perspective. At this point, a starting point that might go beyond the notion of "purer mutual adaptation" emerges. The role of the teacher in the enactment perspective becomes seemingly *more autonomous and liberal* than the image of the teacher as a user-developer by Connelly and Ben-Peretz (1982). In other words, the teachers' work for this enactment perspective is fundamentally concerned with reflectively and critically reconsidering the 'certain parameter' of curriculum materials imposed outside the classroom, which might go beyond "zones of drastic mutation, beyond which the innovation loses its integrity" (Roitman & Mayer, 1982, p. 1).

The use of curriculum materials is more open-ended and ongoing, to a larger extent, in the form of "constructivist enactments conveying a sense of empowerment: teacher and students being invited to function as partners" (Henderson & Hawthorne 1995, p. 20). As Snyder et al. (1992) noted, "from the enactment perspective, the role of the teacher is integral to the process, for there would be no curriculum without the teachers and students giving form to it in the classroom" (p. 429). Nonetheless, it is inherently difficult to mention as exactly as possible what teachers' work consists of in this perspective. One thing that should become clear, however, is that teachers place emphasis on the *intracontextuality*, where teachers and students jointly deliberate the course of action to discover culturally meditated meaningful experiences, rather than in the *intercontextuality*, where teachers and students merely exchange educational experiences under the auspices of the collectively negotiated curriculum guideline outside the classroom. It is focused more on *a process of constructing particular meaning* gleaned from the heart of the context than on *a process of scrutinizing commonly acceptable meaning* drawn from the flexible viewpoint of the teacher (Short et al., 1991).

**Discussion**

The challenge against the role of the teacher-as-knowledge-consumer, who follows the directions in the name of a teacher-proof curriculum, has developed from different alternative assumptions, ranging from the mutual adaptation and the enactment perspectives. In fact, these alternatives cannot be clearly distinguished from each other. Yet, thinking of curriculum as a partially negotiated document between the context and its implementers is surely different from thinking of "curriculum as a social process created and experienced within multiple, interacting contexts"

(Cornbleth, 1990, p. 13). Furthermore, viewing the intention of the developer as something that is *transactive* is far from viewing it as *transgressive* within the context.

No matter what the causes, getting the teacher to feel the ownership of an innovation firmly demands a constant pursuit toward the certainty of "transformation of subjective realities" of the teachers (Fullan, 1991, p. 36). Nonetheless, methods of transforming such subjective realities of the teacher are differently interpreted by different people. In this respect, I argue that the teacher-as-deskilled-worker should be firmly discarded under the critical tradition of thought, which is exemplified by Freire's (1970) transformative emancipatory enactment confronting the banking system of education. As such, teachers' work in critical theories is more praxis-centered than teachers' work in constructivism.

What makes the study of curriculum implementation important becomes clear now in light of the expected role of the teacher, which, in turn, suggests different approaches to professional development. Specifically, if highly specified innovations are to be delivered, low capabilities of the teacher seem to be required in interpreting them, so that teacher education programs merely provide teachers with technical skills and factual knowledge necessary for controlling the classroom - i.e., giving practitioners a teacher-proof product (Fidelity use).

On the other hand, in cases in which programs to be delivered are less specified, teachers need a more deliberative points of view and teacher education programs should provide teachers with individual and collective methods of curriculum inquiry - i.e., technically oriented collaborative

action research (Mutual adaptation). Furthermore, in a similar manner, teacher education programs can equip teachers with personal, pedagogical, reflective, and critical attitudes aimed at either increasing teachers' own educational growth or confronting social and cultural injustice - i.e., interpretive or emancipatory action research (Enactment).

## V. Conclusion

Curriculum implementation is not an event but a change process. Understanding such a process requires many aspects of educational imagination. Throughout this paper, I presented a new framework for curriculum implementation, as opposed to a traditional one that has been juxtaposed by the fidelity perspective and the adaptive one. Specifically, I further articulated the enactment perspective formulated by Snyder et al. (1992), paradigmatically, theoretically, and professionally. I described the paradigms, *positivism, postpositivism, and constructivism*, in order to compare and contrast basic assumptions of each perspective, such as fidelity, mutual adaptation, and enactment. As theoretical indicators of research, policy, and practice, I investigated some major implementation models. Alongside the similarity of the mutual adaptation perspective, finally, I examined in detail the enactment perspective in order to discover a more appropriate method of professional development.

To be sure, both adaptive and enactment perspectives may be interwoven in some ways, as shown in some similarities of teachers' work, *teacher-as-learner* and *teacher-as-member-of-classroom-community*, respectively. However, I have argued here that the latter is likely to provide the teacher and the students with more fruitful and richer room for enhancing professionalization of

teaching and of the students' educational growth.

<End Notes>

1. They continued to mention other kinds of factors associated with teachers' personal variables:
   4. Teacher effectiveness in maintaining student attention and elicitation of students responses.
   5. Amount of positive reinforcement given to students.
   6. Teacher affect (enthusiasm) toward the lesson (Fullan & Pomfret, 1977, p. 349).

2. For critical theories as one kind of paradigm for Guba & Lincoln (1994), while Snyder et al (1992) did not mention a direct implication in the notion of enactment perspective, I view it as the other kind of enactment perspective. Nonetheless, I cannot find an appropriate language for that kind of perspective in the study of implementation, so that I used it under the broad term of enactment perspective with different ontological, epistemological, and methodological assumptions from those of constructivism. In short, there is room for the further discussion necessary to distinguish the constructivist enactment perspective and the critical theory-based perspective in the field of curriculum implementation.

3. Different realistic assumptions regarding implementation are presented in <Table 1>. Three points are made here. First, a single major paradigm on implementation is fidelity, referring to a linear change process from the perspective of the developer. Secondly, as Berman and McLaughlin (1976) pointed out for the first time, the adaptive paradigm apparently parallels fidelity. Yet, this term, *mutual adaptation*, is somewhat ambiguous, for it is closer to a mode of implementation strategy (Snyder et al., 1992), which would be better known as a variation of the fidelity perspective. While the terms such as *transactional* (Miller & Seller, 1985) and *collaborative* (Posner, 1994) are informative in describing the process of putting a change into practice, they are, to a great extent, functional and instrumental, as is also the case with *types of adaptation* (Berman & McLaughlin, 1976). Finally, there is a curriculum-oriented evolving perspective on implementation, which is *transformational* (Miller & Seller, 1985), *curriculum enactment* (Snyder et al., 1992), and *enactment as nontechnological* (Sowell, 1996). As has been mentioned, these curriculum theorists seemingly urge us to imagine constructivist enactment of meaning as a dynamic process of reinterpretation of the written text. It is therefore worth noting at this point that the enactment perspective may go beyond the "recommendably adaptive uses" of the innovation.

4. The classification of implementation models is presented in Table 2. As a result of reviewing the literature on change and curriculum textbooks (Hall & Loucks, 1977; Leithwood & Montgomery, 1982; Ornestein & Hunkins, 1988; Miller & Seller, 1985), I found myself acknowledging the fact that fidelity or programmed implementation models are heavily based upon a top-down and linear conviction. As the positivist paradigm implies, SoC and LoU models are made up of a step-based cognitive developmentalism; IC provides the user with the label of

the (un)acceptable use; linkage model facilitates an efficient system necessary for exchanging information inside/out schools; OD puts collective decision making in the scientific curriculum management; and RD&D simply assumes direct adoption by the user.

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